FIG.1

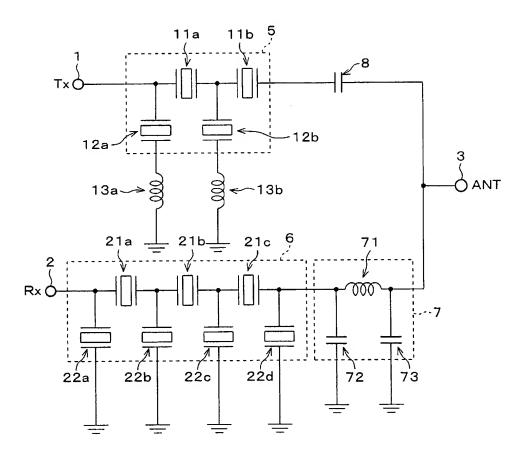


FIG.2

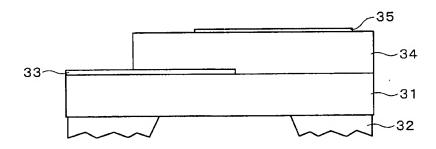


FIG.3

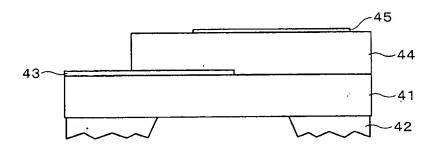
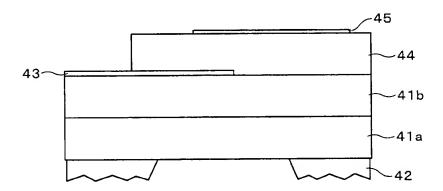
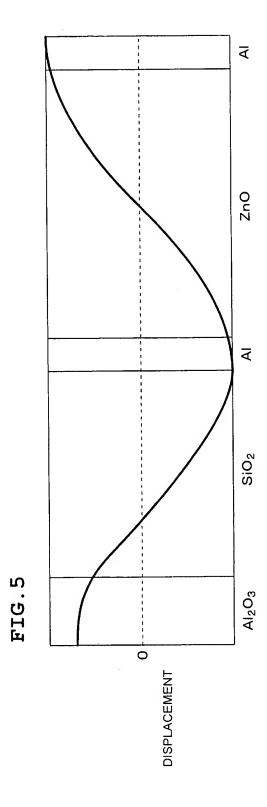
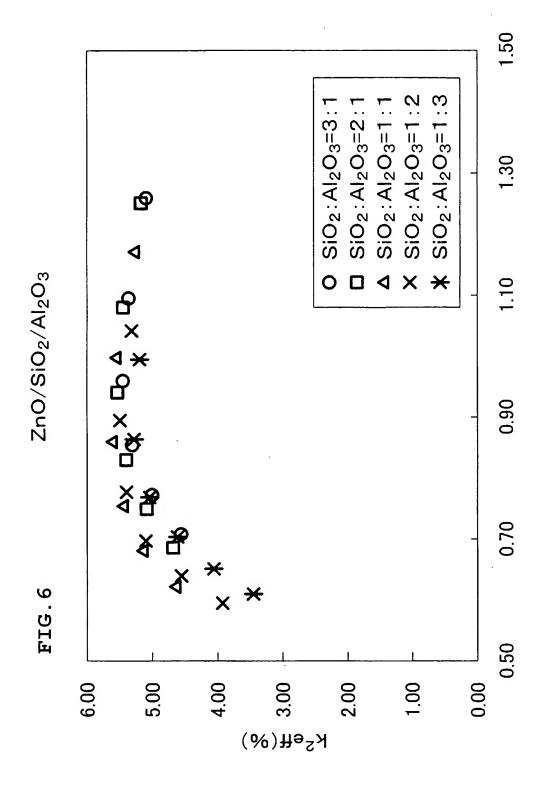


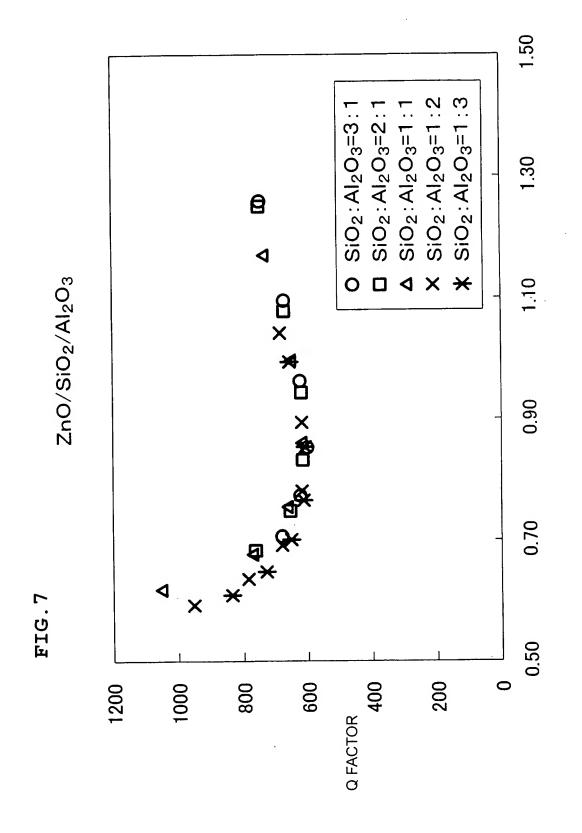
FIG.4



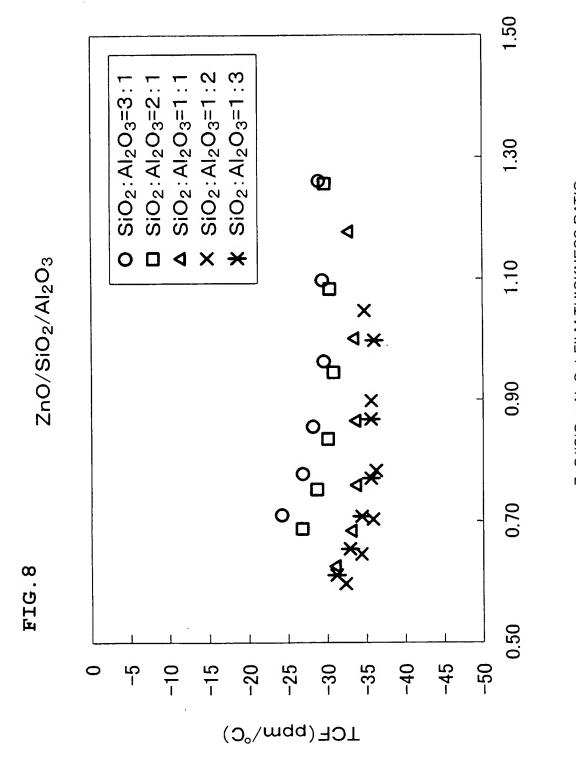




ZnO/(SiO₂+Al₂O₃) FILM THICKNESS RATIO



ZnO/(SiO2+Al2O3) FILM THICKNESS RATIO



ZnO/(SiO₂+Al₂O₃) FILM THICKNESS RATIO

FIG.9

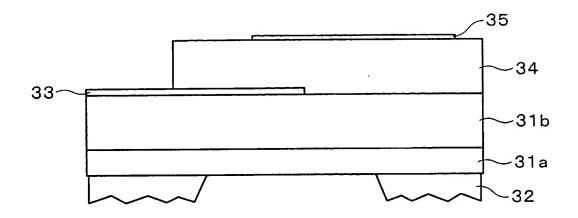
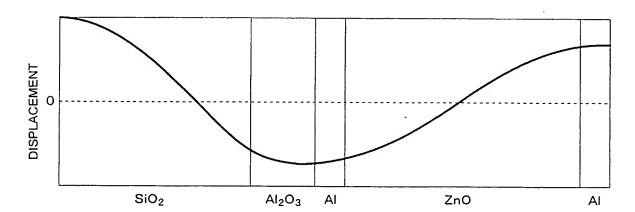
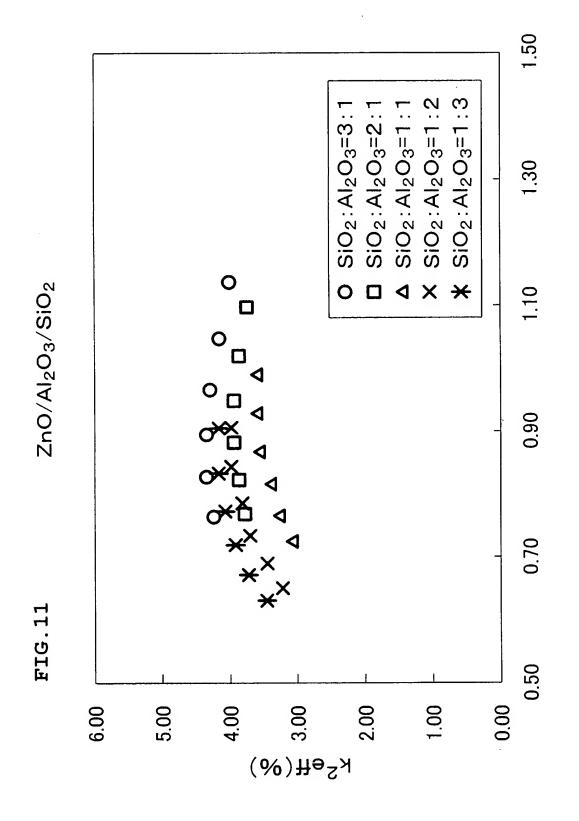
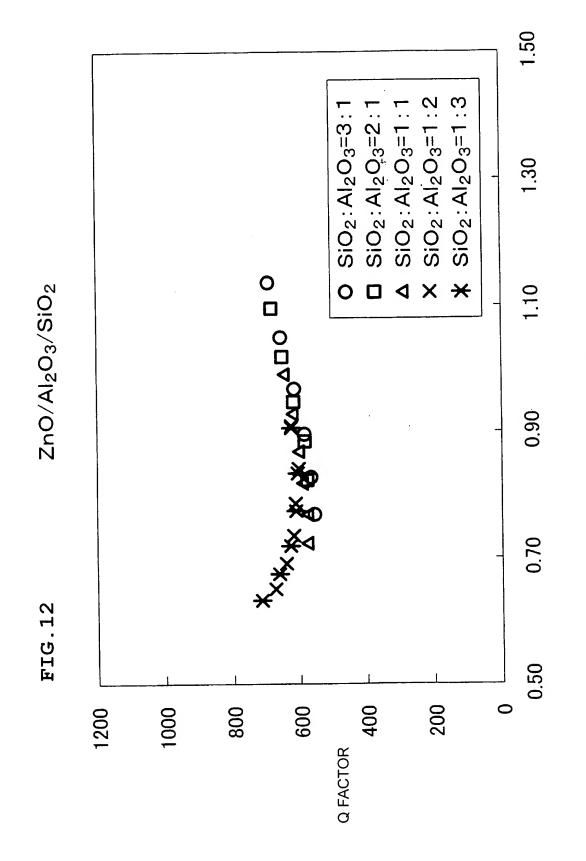


FIG.10

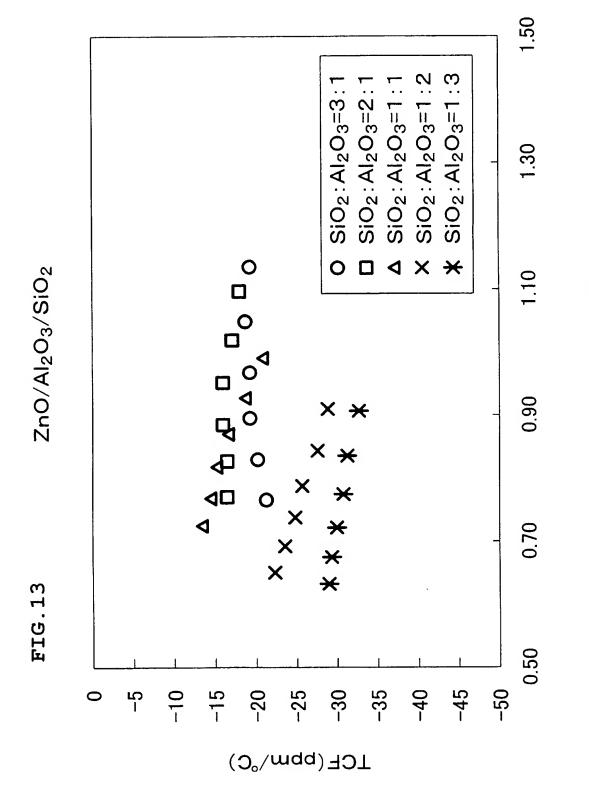




ZnO/(SiO₂+Al₂O₃) FILM THICKNESS RATIO



ZnO/(SiO₂+Al₂O₃) FILM THICKNESS RATIO



ZnO/(SiO2+Al2O3) FILM THICKNESS RATIO

FIG. 15

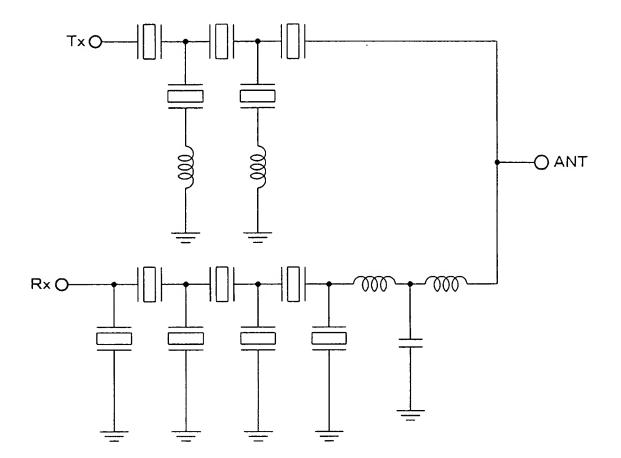


FIG. 16

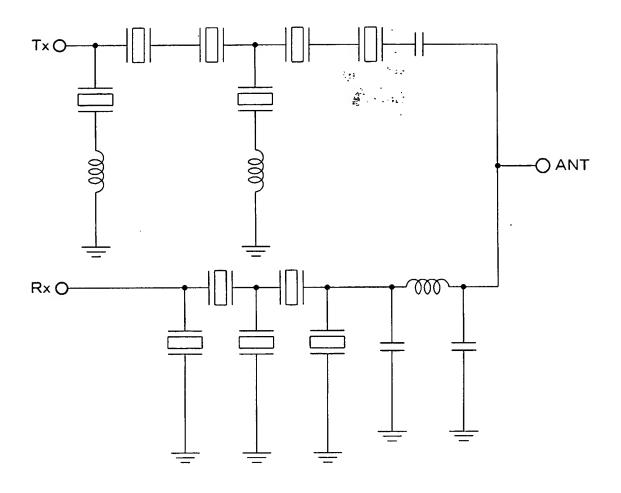
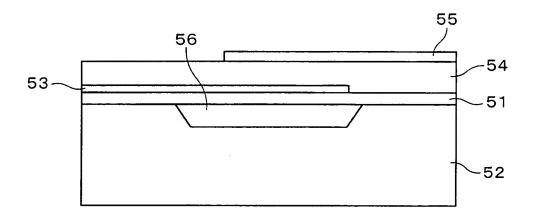
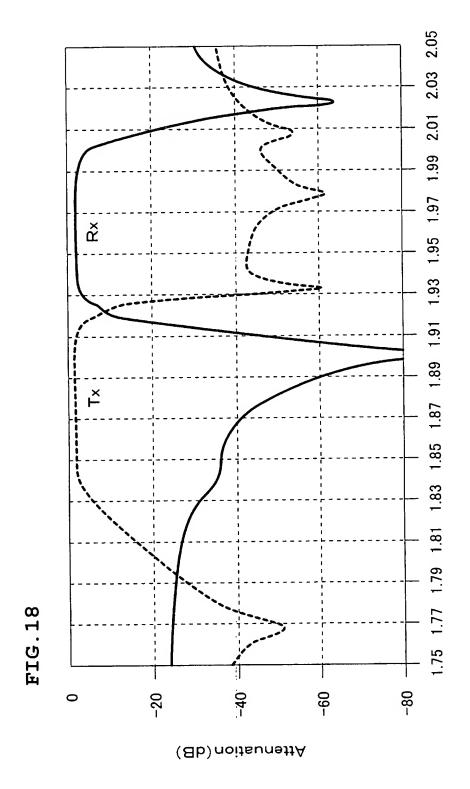
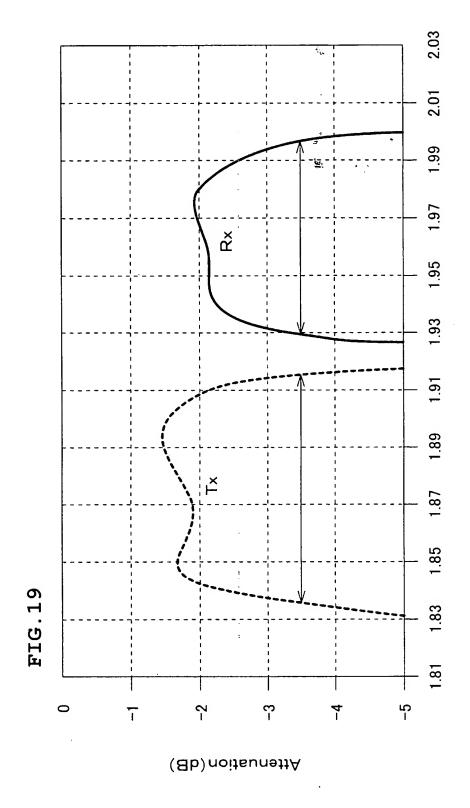


FIG. 17

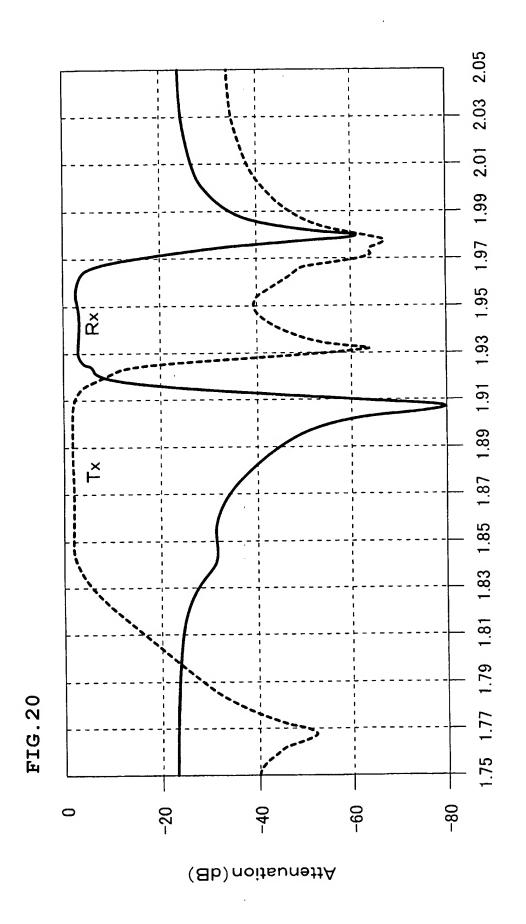




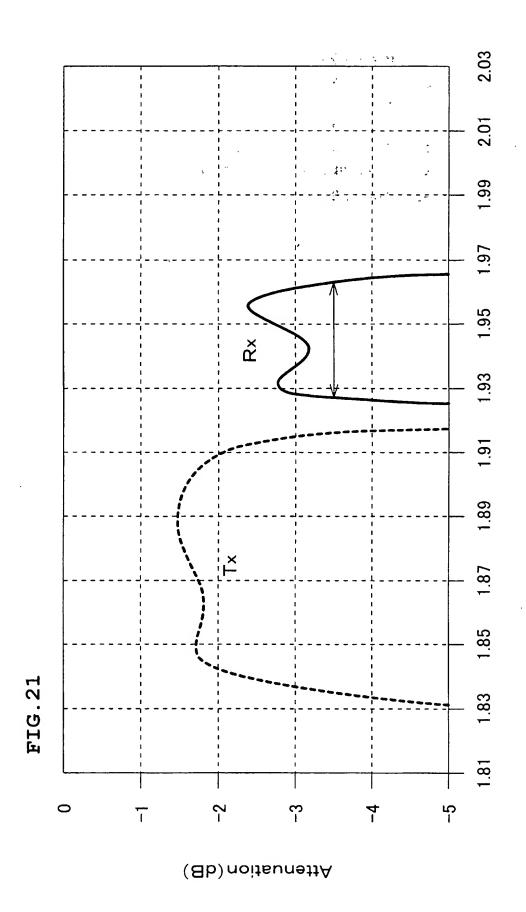
FREQUENCY (GHz)



FREQUENCY (GHz)

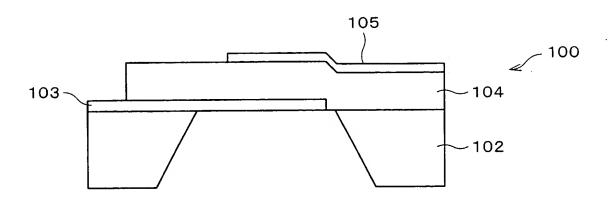


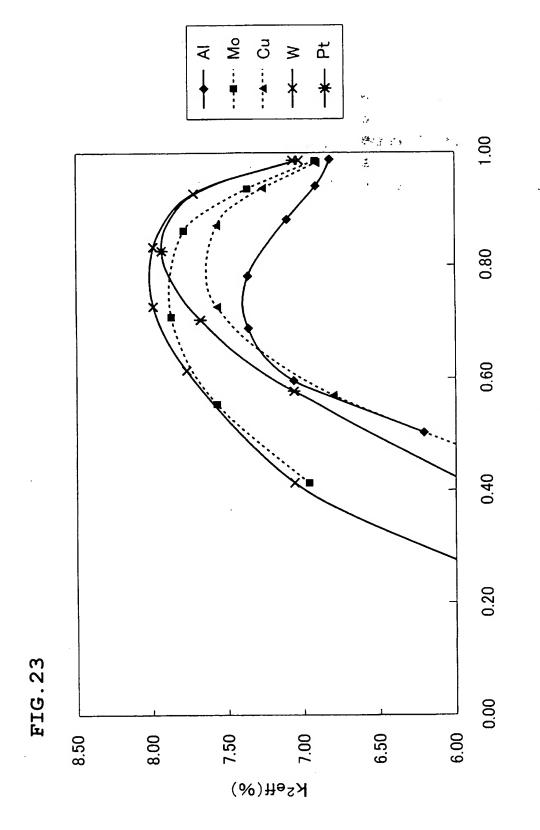
FREQUENCY (GHz)



FREQUENCY (GHz)

FIG. 22





PIEZOELECTRIC FILM THICKNESS RATIO

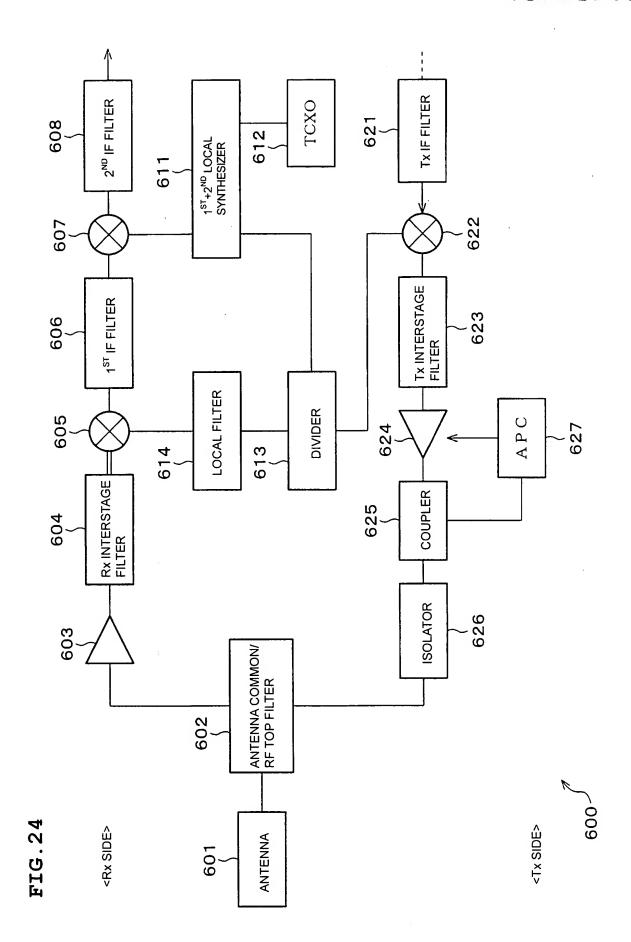


FIG. 25

